

# WHAT IS CLAIMED IS:

1. An atomiser for atomising a sterile, pharmaceutical fluid, which fluid is not under pressure, comprising
  - a) an aluminium storage container in the shape of a bottle (101) for the fluid, wherein the storage container has a beading (105) on the upper end of the bottle neck (102) and a flat or form-rolled upper edge and
  - b) a pump attachment (2), fitted permanently to the neck of the storage container, for manual atomisation of the fluid by pumping, wherein the pump attachment has the following features:
    - a snap or crimp closure (3) for fixing onto the storage container (101);
    - a pump channel (25) which can pump fluid from the storage container into a pressure chamber;
    - a valve (11) which is provided between the storage vessel and the pressure chamber;
    - a riser (7, 16) which leads from the pressure chamber (10) to a nozzle (18);
    - a pressure control valve (17) which is connected to the riser;
    - a nozzle (18) to atomise the fluid;
    - a triggering element (15) via which a piston (6) can be operated to produce the pressure necessary for atomisation in the pressure chamber (10);
    - air inlet points (23) outside of the riser (7, 16) and air inlet paths (22) extending from outside the pump attachment into the storage container;
    - oligodynamically-effective substances in and/or along the paths taken by the fluid in the pump channel and/or riser between the storage container and the nozzle;
    - sterilisation means (24) along the path taken by the inflowing air, i.e. between the air inlet openings and the storage container.
2. An atomiser according to claim 1, characterised in that the external diameter of the bottle neck is between 15 and 33 mm, preferably 18 to 21 mm or 30 to 33 mm.
3. An atomiser according to claim 1, characterised in that the internal diameter of the bottle neck is 12 to 28 mm, preferably 14 to 16 mm or 24 to 26 mm.
4. An atomiser according to claim 1, characterised in that the wall of the storage container has a thickness in the wall and neck area of 0.3 to 0.5 mm, preferably

0.37 to 0.41 mm, and has a thickness in the base area of 0.5 to 1.5 mm, preferably 0.8 to 1 mm.

5. An atomiser according to claim 1, characterised in that the bottle neck has an annular indentation extending perpendicular to the axis.
6. An atomiser according to claim 1, characterised in that the storage container, including the neck and the upper edge of the neck, are varnished on the inside.
7. An atomiser according to claim 1, characterised in that the upper edge of the storage container is finely ground flat.
8. An atomiser according to claim 1, characterised in that a seal made from rubber or natural or synthetic caoutchouc, or polyethylene, is disposed between the bottle neck and the pump attachment.
9. An atomiser according to claim 1, characterised in that the bottle height is about 50 to about 250 mm.
10. An atomiser according to claim 9, characterised in that the bottle height is about 50 to about 125 mm.
11. An atomiser according to claim 10, characterised in that the bottle height is about 60 to 90 mm.